

Bill of Materials



TI DESIGNS
TIDA-Q0188

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer
C1, C3	2	1800pF	CAP, CERM, 1800pF, 100V, +/-10%, X7R, 0402	0402	GRM155R72A182KA01D	MuRata
C2	1	0.018uF	CAP, CERM, 0.018uF, 100V, +/-10%, X7R, 0603	0603	C0603C183K1RACTU	Kemet
C4, C5	2	0.22uF	CAP, CERM, 0.22uF, 6.3V, +/-10%, X5R, 0402	0402	GRM155R60J224KE01D	MuRata
C6, C8	2	2700pF	CAP, CERM, 2700pF, 100V, +/-10%, X7R, 0402	0402	GRM155R72A272KA01D	MuRata
C7	1	0.027uF	CAP, CERM, 0.027uF, 100V, +/-10%, X7R, 0603	0603	C0603C273K1RACTU	Kemet
C9, C18	2	4.7uF	CAP, CERM, 4.7uF, 6.3V, +/-20%, X5R, 0402	0402	C1005X5R0J475M050B	TDK
C10	1	2.2uF	CAP, CERM, 2.2uF, 100V, +/-10%, X7R, 1210	1210	GRM32ER72A225KA35L	MuRata
C12	1	0.1uF	CAP, CERM, 0.1uF, 100V, +/-5%, X7R, 1206	1206	12061C104JAT2A	AVX
C13	1	330pF	CAP, CERM, 330pF, 100V, +/-10%, X7R, 0402	0402	GRM155R72A331KA01D	MuRata
C15	1	0.47uF	CAP, CERM, 0.47uF, 6.3V, +/-10%, X5R, 0402	0402	GRM155R60J474KE19D	MuRata
C16, C17	2	0.1uF	CAP, CERM, 0.1uF, 6.3V, +/-10%, X5R, 0402	0402	C1005X5R0J104K	TDK
D1, D2	2	40V	Diode, Schottky, 40V, 0.35A, SOD-523	SOD-523	ZHCS350TA	Diodes Inc.
D3	1	Yellow	LED, Yellow, SMD	LED, 1.3x0.65x0.8mm	LY L29K-J1K2-26-Z	OSRAM
D4	1	200V	Diode, Ultrafast, 200V, 1A, SOD-123	SOD-123	RF071M2S	Rohm
D5	1	Green	LED, Green, SMD	1.7x0.65x0.8mm	LG L29K-G2J1-24-Z	OSRAM
D6, D7, D8	3	30V	Diode, TVS, Bi, 30V, 400W, SMA	SMA	SMAJ30CA	Bourns
J2	1		M12 Socket, 4Pos, TH	M12 Conn D12x14.3	09 0431 212 04	Binder-Connector
J3	1		Header, 4x1, 50mil, R/A, SMT	Header, 50mil, R/A, SMT	850-10-004-40-001000	Mill-Max
R1, R3, R7, R11	4	4.12k	RES, 4.12k ohm, 0.1%, 0.1W, 0603	0603	RG1608P-4121-B-T5	Susumu Co Ltd
R2	1	3.24k	RES, 3.24k ohm, 0.1%, 0.333W, 1206	1206	PFC-W1206R-12-3241-B	TT Electronics/IRC
R5, R6, R8	3	47	RES, 47 ohm, 5%, 0.063W, 0402	0402	CRCW040247R0JNED	Vishay-Dale
R9	1	300	RES, 300 ohm, 0.1%, 0.1W, 0603	0603	RG1608P-301-B-T5	Susumu Co Ltd
R10	1	500 Ohm	TRIMMER 500 OHM 0.125W SMD	3.52x4.16x3.94mm	3223W-1-501E	Bourns
R12	1	0	RES, 0 ohm, 5%, 0.063W, 0402	0402	CRCW04020000Z0ED	Vishay-Dale
R13, R14	2	820	RES, 820 ohm, 5%, 0.063W, 0402	0402	CRCW0402820R0JNED	Vishay-Dale
R15	1	47k	RES, 47k ohm, 5%, 0.063W, 0402	0402	CRCW040247K0JNED	Vishay-Dale
R16	1	4.7k	RES, 4.7k ohm, 5%, 0.063W, 0402	0402	CRCW04024K70JNED	Vishay-Dale
S1	1		Switch, Slide, SPDT 100mA, SMT	Switch, 5.4x2.5x2.5mm	CAS-120TA	Copal Electronics
S2	1		Switch, Push Button, SMD	2.9x2x3.9mm SMD	SKRKAEE010	Alps
U1	1		Low-Power, Low-Noise, 24-Bit Analog-to-Digital Converter for Small Signal Sensors, RVA0016A	RVA0016A	ADS1220IRVA	Texas Instruments
U2	1		IO-LINK PHY for Device Nodes, RGB0020A	RGB0020A	SN65HVD101RGB	Texas Instruments
U3	1		24 MHz Mixed Signal Microcontroller, 1024 B SRAM and 17 GPIOs, -40 to 85 degC, RGE0024G	RGE0024G	MSP430FR5738IRGE	Texas Instruments
C11	0	330pF	CAP, CERM, 330pF, 100V, +/-10%, X7R, 0402	0402	GRM155R72A331KA01D	MuRata
C14	0	2200pF	CAP, CERM, 2200pF, 6.3V, +/-10%, X7R, 0402	0402	GRM155R70J222KA01D	MuRata
J1	0		Header, 4x1, 50mil, R/A, TH	Header, 4x1, 50mil, R/A	850-10-004-20-001000	Mill-Max
R4	0	0	RES, 0 ohm, 5%, 0.063W, 0402	0402	CRCW04020000Z0ED	Vishay-Dale

Notes:

Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.

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